

# **STepped Enhancement of PTSD Services Using Primary Care (*STEPS UP*)**

**Michael C. Freed, Ph.D., EMT-B**

**Clinical Research Psychologist**

**STEPS UP Clinical Research Program Director**

**DoD Deployment Health Clinical Center, Walter Reed Army Medical Center**

**Assistant Professor (Research)**

**Department of Psychiatry, Uniformed Services University of the Health Sciences (USUHS)**

**Scientist**

**Center for the Study of Traumatic Stress, USUHS**

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>MAR 2011</b>		2. REPORT TYPE		3. DATES COVERED <b>00-00-2011 to 00-00-2011</b>	
4. TITLE AND SUBTITLE <b>STepped Enhancement Of PTSD Services Using Primary Care (STEPS UP)</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>Walter Reed Army Medical Center, DoD Deployment Health Clinical Center, STEPS UP Clinical Research Program, Washington, DC, 20307</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES <b>Presented Mar 21 at the 1st Annual Armed Forces Public Health Conference 2011</b>					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>Same as Report (SAR)</b>	18. NUMBER OF PAGES <b>24</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			



# STEPS UP Team



## Principal Investigators

Initiating: COL Charles Engel, MD, MPH (USU / DHCC)

Partnering: Robert Bray, PhD (RTI International)

Partnering: Lisa Jaycox, PhD (RAND Corporation)

## Coinvestigators

(listed alphabetically)

Donald Brambilla, PhD (RTI)

Christine Eibner, PhD (RAND)

Michael C. Freed, PhD (DHCC/USUHS)

Kristie L. Gore, PhD (DHCC/USUHS)

Wayne Katon, MD (UW, Seattle)

Becky Lane, PhD (RTI)

Brett Litz, PhD, MA (Boston Univ & VA)

Russ Peeler, PhD (RTI)

Terri Tanielian, MA (RAND)

Jürgen Unützer, MD, MPH (UW, Seattle)

Jennifer Weil, PhD (DHCC)

Douglas Zatzick, MD (UW, Seattle)

## Site Investigators

Allen Swan, MD (Ft Stewart, GA)

COL Kris Peterson, MD (Ft Lewis, WA)

Melissa Molina, MD (Ft Bliss, TX)

COL Mark Reeves, MD (Ft Carson, CO)

TBN (Ft Campbell, KY)

Lillie Walker, MPAS, PA-C (Ft Bragg, NC)

## Scientific Advisors

Allen Dietrich, MD (Dartmouth)

John Williams, MD (Duke & Durham VA)

Kurt Kroenke, MD (Regenstrief Institute)

Kathryn Magruder, PhD, MPH (MUSC)

Charles Hoge, MD (WRAIR)

## Research and Support Staff

Michael C. Freed, PhD (Director)

Phoebe Kuesters, MPH (DHCC)

Laura Novak (DHCC)

Julie Cooper, MPH (UW)

Eileen Delaney, PhD (VA Boston)

Kristine Rae Olmsted, MSPH (RTI)

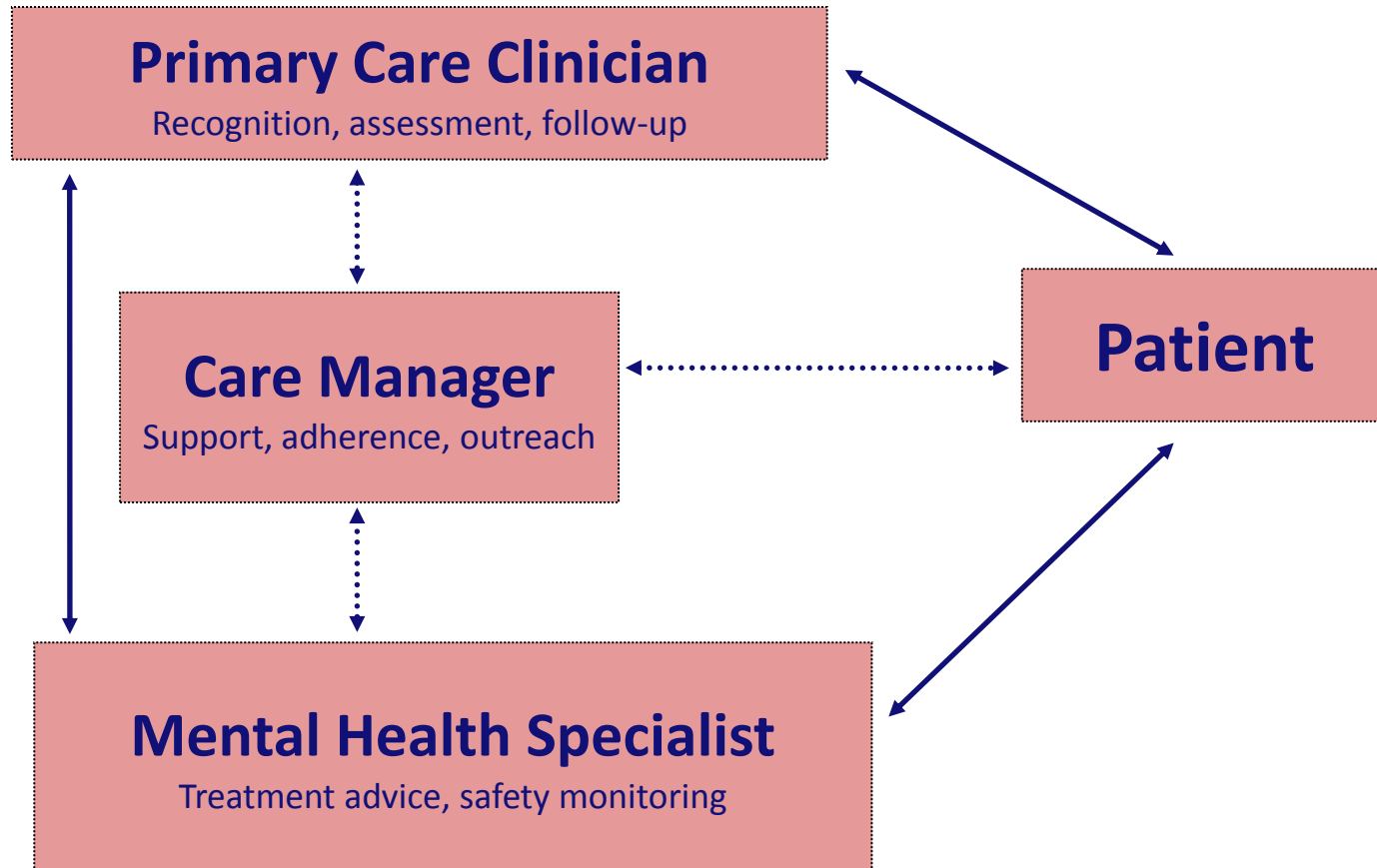
Jennifer Lyden, MPH (RTI)



**Uniformed Services University**  
of the Health Sciences



# What is STEPS UP?



# STEPS-UP versus RESPECT-Mil

- ★ Adds the option for centralized, telephone-based care management which improves:
  - Fidelity of intervention delivery through ongoing training and supervision and
  - Continuity of care as care management can continue if a service member changes post or healthcare system.
  
- ★ Adds care manager training in *motivational interviewing* (MI) and *behavioral activation* (BA) strategies to improve:
  - Engagement in treatment and
  - Tools for early intervention.

# STEPS UP versus RESPECT-Mil

- ★ Adds preference-based stepped care (i.e., order of steps determined by symptom severity, patient preference, & primary care recommendation) to existing options of pharmacotherapy that includes:
  - Web-based psychoeducation, self-management, and intervention;
  - Telephone delivered cognitive behavioral therapy;
  - Individual face to face therapy by a behavioral health specialist.
  
- ★ Adds enhancements to existing case management software (FIRST-STEPS). Improves efficiency and delivery of
  - Clinical supervision and patient staffing/disposition,
  - Risk assessment,
  - Case management, and
  - STEPS UP interventions

# STEPS-UP Overview

## Go to / Start at Next Step

- Patient Preference
- Clinically Indicated
- Inadequate Response to Prior Steps
- Clinical Risk of Harm to Self/Others
- Complicating Clinical Features

## Care Management + Primary Care + Local Specialist

Specialty Mental Health (e.g., psychiatrist, psychologist, MSW)  
Co-located in PC Clinic (Preferable) or in BH Clinic

### STEP 3

## Care Management + Primary Care

Medication and/or Distance Cognitive Behavioral Therapy  
Web (DESTRESS-PC & Beating the Blues)  
Telephone (DESTRESS-T)  
PRN Motivational Interviewing for Treatment Adherence

### STEP 2

## Care Management and Connection To Services

Outreach and Engagement  
Patient Preference and Education  
Behavioral Activation and Pleasant Event Scheduling  
Motivational Interviewing for Treatment Engagement

### STEP 1

# Hypotheses

- ★ Among soldiers in primary care with possible depression or PTSD, STEPS UP will improve
  - PTSD & depression symptom severity (primary)
  - Anxiety, somatic symptom severity, alcohol misuse, mental health & work-related functioning (secondary)
  
- ★ STEPS UP will also be
  - Cost-effective relative to optimized usual care
  - An acceptable and satisfactory treatment package to soldiers, families, and clinic providers & staff



# General STEPS UP Trial Features

- ★ Target enrollment is 1500 soldiers
- ★ 6 Army Posts (18 primary care clinics; all power projection platforms; 250 participants from each post)
- ★ Randomized to STEPS UP or Optimized Usual Care (which includes RESPECT-MIL)
- ★ Assessments at baseline, 3 month, 6 month, and 12 month follow-up

# Eligibility Criteria

## ★ Inclusion criteria:

- AD at time of enrollment
- Screen positive for PTSD or Depression
- Deployment to Iraq or Afghanistan since 2003
- Access to computer and email

## ★ Exclusion criteria:

- Treatment refractory for PTSD or depression
- Alcohol dependence in past 12 months
- Other severe mental illness in past 2 years (e.g., psychosis)
- Active SI past 2 months
- Unstable physical condition
- Clinic employees
- Anticipated deployment, demobilization, or separation in next 6 months

# STEPS UP “Audibles”

- ★ Post-funding design changes and considerations
- ★ Beat the very active control group
  - Is more always better, or is more, more complicated?
  - Less than minimal dose to reach the masses
  - No measure of passage of time or pre R-Mil usual care: should we add another arm?

	STEPS UP	
	-	+
R-Mil	Lose—no UC outcomes	Win
	Lose	Draw—no UC outcomes

# STEPS UP “Audibles”

## ★ Include Soldiers with Depression

- ~834k visits to R-Mil between Feb 2007 and Dec 2010
  - ★ Depression only: 20,596 (2.5% of screened visits, 19.4% of positive screens)
  - ★ PTSD only: 12,157 (1.5% of screened visits, 11.5% of positive screens)
  - ★ Both PTSD and Depression: 17,979 (2.2% of screened visits, 17.0% of positive screens)
- Collaborative care works for depression
- Components of treatments are similar (e.g., SSRI's; possibly BA)
- Larger participant pool
- We can keep the STEPS UP acronym by saying that ‘PTSD Services’ includes care for depression without too much of a stretch.

# Status of STEPS UP

## ★ Currently Under Regulatory Review

- Primary IRB Reviews
  - ☆ Walter Reed (lead IRB)
  - ☆ 6 site data collection sites
  - ☆ RTI, RAND, UW, and VA Boston
- Second Level IRB Reviews and Other Regulatory Organizations
  - ☆ USUHS & HRPO
  - ☆ DCoE & HJF

## ★ Umbrella Agreement

- HJF, RTI, & RAND
- DoD made 3 separate awards

## ★ Development of IT Infrastructure

- Advanced data collection system
- Enhancements of FIRST-STEPS

## ★ June 2011 is Anticipated Start Date







# DESTRESS-PC

- ★ **DElivery of Self-Training & Education for Stressful Situations, Primary Care version**
- ★ **Web-based, nurse assisted PTSD self-management**
- ★ **Effective in one controlled trial; second nearing completion**
- ★ **Adapted for primary care use**
- ★ **Designed for military/veteran**
- ★ **Nurse (RN) guided**
- ★ **Six weeks long & three logins per week**

# DESTRESS-PC Approach

- ★ CBT & stress inoculation training
- ★ Components:
  - Coping skill building
  - Self-monitoring of arousal & negative affect
  - Anticipation of & practice for symptom triggers
  - Focus on work, family, and leisure functions
  - Promotes engagement in previously avoided activities
- ★ Nurse monitors progress & homework completion
- ★ Nurse checks in by phone every other week with additional phone contact as indicated



# Beating the Blues

- ★ Web-based treatment for depression
- ★ Published results supporting its use in primary care settings
- ★ Used in the UK's NHSs; new US contract with UPMC
- ★ Combines multi-media interactive computer technology with cognitive behavioral techniques
- ★ 8 weekly 50-minute sessions
- ★ Homework assignments

# Telephone CBT for PTSD: DESTRESS-T

- ★ Adaptation of DESTRESS, modified for person-to-person telephone administration
- ★ 6 to 9 week program involving weekly 50 minute person-to-person telephone contacts with a closely supervised nurse (RN)
- ★ Calls focus on web-based exercises and homework used in DESTRESS-PC as well as how to apply DESTRESS-T skills to current difficulties.

# Telephone CBT for PTSD: DESTRESS-T

**For soldiers who...**

- ★ **Desire a more interpersonal mode of treatment than DESTRESS-PC**
- ★ **Require more active interpersonal involvement to complete the DESTRESS logons and homework**
- ★ **Experience incomplete or inadequate response to DESTRESS-PC**

# **Web-Based Enhanced Care Management Tracking: FIRST-STEPS**

- ★ **Fast Informatics Risk & Safety Tracker and Stepped Treatment Entry & Planning System**
- ★ **DoD-approved software designed to manage symptoms, treatment response, and risk**
- ★ **Located on a secure system which uses technology similar to that used to protect credit card information in e-commerce applications**
- ★ **Currently used in RESPECT-Mil sites and facilitates the monitoring of patient symptoms and supervision sessions**
- ★ **Provides clinicians with the ability to document and monitor suicide risk, providing a set of standardized questions**

# FIRST-STEPS — Web-based Care-Manager Support & Reporting System

The screenshot displays the PBRMS (Patient-Based Reporting and Monitoring System) web application interface, which is used for managing patient care and generating reports. The interface is divided into three main sections:

### Medication Management Panel

This panel allows users to manage medication entries for a specific patient (Larry Gracen). It includes a sidebar with navigation options: PRE Work Flow, Collect Information, General Concern, Medication Non-Adherence, Counseling Non-Adherence, Self Management Concern, PHQ-9, Case Status, Estimate, Snapshot Estimate, Management, Contact Information, Scheduling, Medication, Counseling, and Management Plan.

The main content area shows the "Medication" section with a "Medication saved." message. It includes a "New Entry" form with fields for Medication (Ambien® (zolpidem)), Dose (50 mg), Prescribe Date (10/15/2008), Change Date (10/18/2008), Change Type (Start Med), and Comments (Todd Musig (30 Oct 08)). Below the form is a table of medication entries:

Archive?	Medication	Dose	Prescribe Date	Change Date	Change Type	Comments	Entered By	Error?
<input type="checkbox"/>	Ambien® (zolpidem)	50	10/15/2008	10/18/2008	Start Med	Todd Musig (30 Oct 08)		<input type="checkbox"/>

### Final Estimate Report Panel

This panel displays the "FINAL ESTIMATE FOR:" for Jane Smith. It includes a "Summary" and "Profile" button. A message states: "The final estimate has NOT been made for this snapshot." Below this, a table shows the estimates for various categories:

Category	First	Previous	Current
General Concern	Moderate	Low	Low
Medication Non-Adherence	High	High	Moderate
Counseling Non-Adherence	High	Moderate	Low
Self Management Concern	Low	Moderate	High
PCL	33-55	13-32	13-32
Suicide Staffing	A Week	A Week	NA
Case Status	Flagged	No Flag	No Flag

Based on the information obtained from the above Factor Groups, please rate the level of concern you have for this patient.

Legend: Low (Green), Moderate (Yellow), High (Red)

### Summary and History Panel

This panel provides a "SUMMARY FOR:" section for Jane Smith. It includes a "New Episode" button and a table of episodes:

Episode/Product	Created	Closed	Estimate
First Steps Syst.	30 Jun 08 - 11:59	Open (Musig)	

Below the episodes table is a "Snapshots" section with a "New Snapshot" button and a "Print Worksheet" button. It includes a table of snapshots in the selected episode:

Created	Estimate	PHQ-9 Severity Score	PCL Severity Score
30 Oct 08 - 11:14	Moderate	16	NA
30 Jun 08 - 11:59	High	20	NA

At the bottom, there is a "Historical Graph for: PHQ-9" showing a line graph of the PHQ-9 score over time, with a legend for the score ranges: 20-27, 15-19, 10-14, 5-9, 0-4, and Unknown.

# FIRST-STEPS – Improves Efficiency, Accountability & Effectiveness of Staffing

Home	Resources	Contact	Help	Logout	PBRMS		
Select Individual >	Open/Recent PREs	A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ALL				Search	New Individual
Acuity			IMPORTANT MESSAGE		MESSAGE FROM PREVIDENCE		
			Welcome.		Welcome to the Previdence Risk		
					<a href="#">more</a>		
Acuity	Case Closure	Call Schedule	Caseload	Closed Cases			
MY VIEW   UNIT VIEW					Print Preview		
Unit	Name	Suicide Staffing	Facilitator Concern	Deployers	Tx Non-Response	Last Staffing Date	Last Contact
Fort Hood	<a href="#">April, Test</a>	Unknown	Moderate	30-60 Days	No		25 Apr 08
Germany 1	<a href="#">Braxton, Bruce</a>	Emergency	High		No		12 Aug 08
Beta Fort Stewart	<a href="#">Frankie, Bill</a>	A Duty Day	High	60-90 Days	No	2 Oct 08	2 Oct 08
Beta Fort Bliss	<a href="#">Harry, Dirty</a>	A Duty Day	High	Not Deploying	No		20 Oct 08
Fort Drum	<a href="#">New, Tom</a>	A Duty Day	Unknown		No		24 Apr 07
Fort Carson	<a href="#">Turner, Bill</a>	A Duty Day	Unknown		No		20 Apr 07
Vicenza	<a href="#">Violet, Eric</a>	A Duty Day	Unknown		No		19 Apr 07
Fort Lewis	<a href="#">Wilking, Sarah</a>	A Duty Day	Unknown		No		19 Apr 07

# DoD “STEPS UP”

**ST**epped  
**E**nhancement of  
**P**TSD  
**S**ervices  
**U**sing  
**P**rimary Care

A 6-site (18 clinic) RCT comparing 12-months of a system of collaborative PTSD and depression care versus usual primary care in the DoD health care system.

Supported by a DoD grant (DR080409) from the Congressionally-Directed Medical Research Program (CDMRP)



# Features of STEPS-UP Intervention

## Preference-Based Stepped Care

- ★ Menu of evidence-based options sequenced by negotiated patient & provider preferences
- ★ Stepped pharmacotherapy for PTSD & comorbidities
- ★ Enhanced primary care psychosocial options:
  - Web-based nurse assisted self-management
  - Telephone CBT
  - Specialty-based CBT
  - Specialty-based exposure

## Centralized Care Management

- ★ Care management is telephonic using RNs
- ★ Central facility affords –
  - Scalability & economy of scale
  - Fidelity training & monitoring
  - Assisted system transitions
- ★ Site-based clinic enhancements
  - Guided PC doc with enhanced pharmacotherapy expertise
  - Guided specialist with enhanced PTSD psychotherapy expertise
- ★ Web-based care management